

27. SEXUAL DIMORPHISM OF A PERCH *PRIACANTHUS HAMRUR* (CUV. & VAL.)

(With four text-figures)

The present work deals with the sexual dimorphism of *Priacanthus hamrur* (Cuv. & Val), an edible perch. Tobias (1974) drew attention to the sexual dimorphism of a barb, *Puntius filamentosus* (Val.) while Inasu (1993) worked that out for a freshwater puffer fish *Tetraodon travancoricus* Hora & Nair. Day (1958) described the genus *Priacanthus* based on a single species

(*P. blochi*). Four species of *Priacanthus* were subsequently described by W. Fischer (1974). Sexual dimorphism has not been studied in any of these species.

About 27 adult specimens of *Priacanthus hamrur* (Cuv. & Val.) were collected in February - March 1997 in fresh condition from Munampam (Trichur dist. Kerala). Total length,

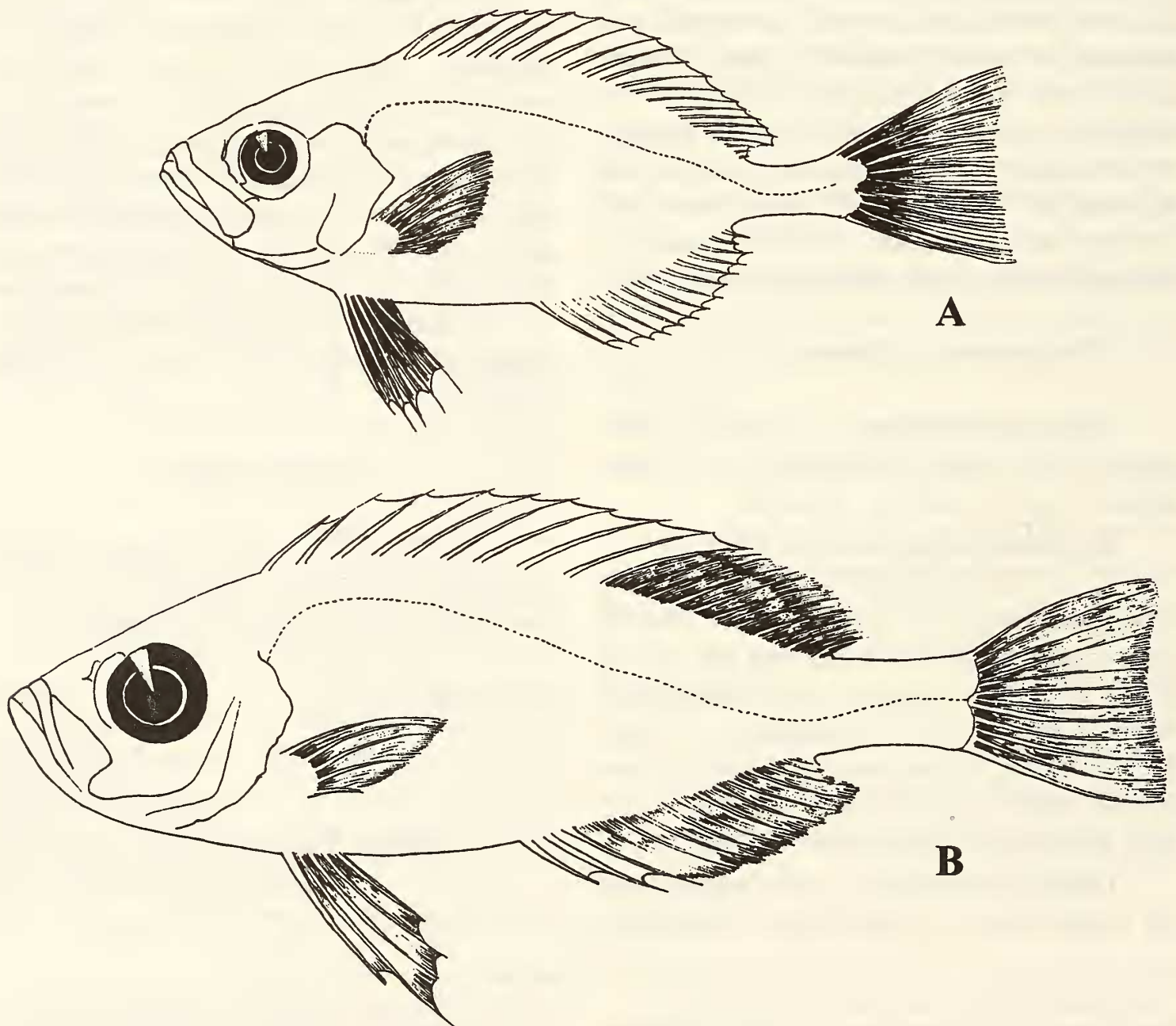


Fig. 1. *Priacanthus hamrur* (Cuv. & Val.) A: Male; B: Female

head length, caudal peduncle length, maximum width, inter-orbital diameter and total weight of each specimen were recorded separately. The fine morphological differences between males and females, ascertained by dissection, were compared.

A clear sexual dimorphism is present in *Priacanthus hamrur* (Cuv. & Val.). Females are more than twice as large and heavy as the males of the same age group. Lateral line in male is curved downwards in front in the shape of a hook, while it is less so in female. Opercular spine is more sharply marked in males. The dorsal anterior profile of the head in female has a greater downward slope. The soft rays in the posterior half of the dorsal fin of the female are more filamentous and they protrude out from the upper margin of the fin. Inter-orbital diameter is wider in female.

A clear sexual dimorphism was observed in *Priacanthus hamrur* (Cuv. & Val.). Females are much larger and heavier than males. Clear morphological differences also distinguish males from females.

The lateral line is arched downwards at the front end of the body in males. This hook-like downward bend of the lateral line is not so conspicuous in females. The lateral line in female is less arched in front. (Fig. 1A & B).

The soft rays in the posterior half of the dorsal fin are more filamentous and protrude beyond the upper margin of the fin in females, while those in the male are less filamentous and do not protrude so (Fig. 2A & B).

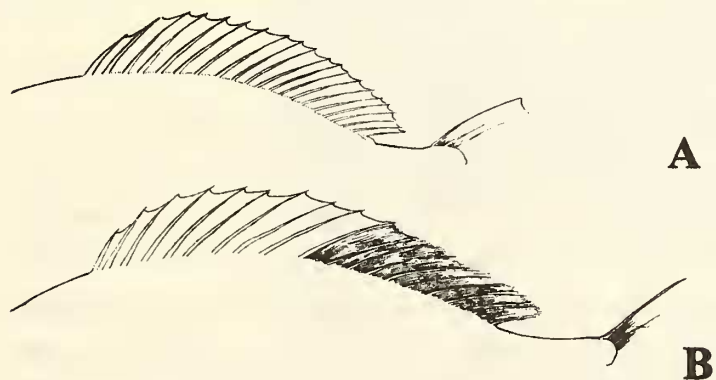


Fig. 2. Soft rays in the posterior half of dorsal fin
A: Male; B: Female

The dorsal anterior profile of the head has a downward slope in female, which is absent in male (Fig. 3A & B).

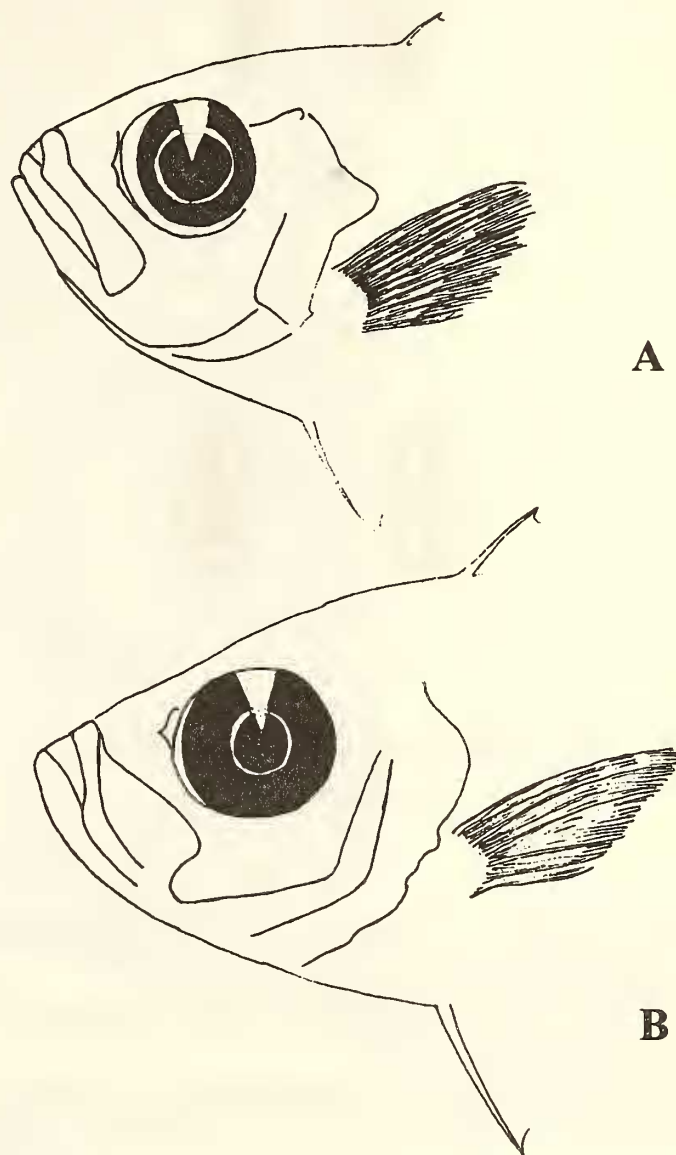


Fig 3. The dorsal anterior profile of head.
A: Male; B: Female

The opercular spine is sharply marked in males, but it is feeble in females (Fig. 3A & B).

The inter-orbital space is wide in females (1.76 cm), but it is less wide in males (1.28 cm). (Fig. 4A & B).

The average body weight of the female is more than twice that of the males of the same age group. Females also dominate the males in all other body measurement as shown in Table 1.

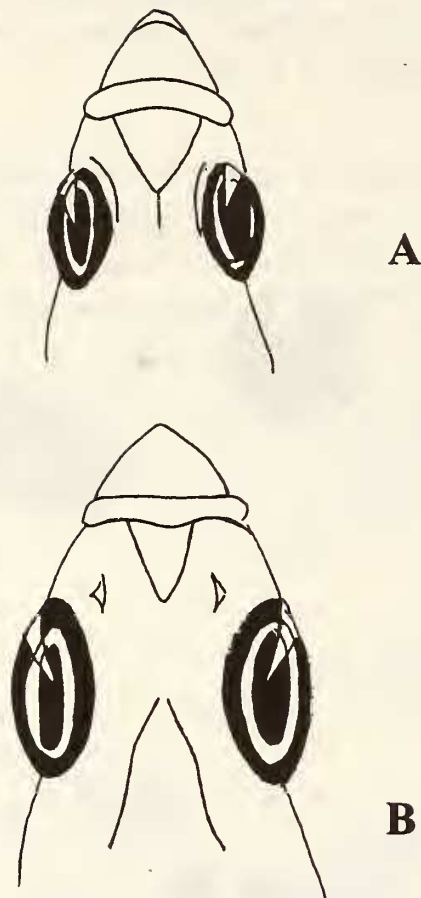


Fig. 4. Inter-orbital space in A: Male;
B: Female compared

TABLE I
COMPARISON OF MORPHOMETRY IN MALES AND
FEMALES OF *PRIACANTHUS HAMRUR*
CUV. & VAL.

	Male	Female
1. Ave. total length	20.57 cm	Ave. total length 26.3 cm
2. Ave. head length	5.1 cm	Ave. head length 6.13 cm
3. Ave. caudal peduncle length	2.26 cm	Ave. caudal peduncle length 7.71 cm
4. Ave. max. width	5.67 cm	Ave. max. width 7.26 cm
5. Ave. total wt.	101.07 gm	Ave. total wt. 215.8 gm

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28. BIOLOGY OF THE PARASITIC WASP *STILBUM CYANURUM* VAR. *SPLENDEUS* FABR. (CHRYSIDIDAE: HYMENOPTERA)

(With one plate)

The chrysidid wasps *Stilbum cyanurum* var. *splendeus* Fabr. are metallic greenish blue in colour, seen during bright sunshine, and are parasitoids on mud-dauber wasp grubs of the families Eumenidae and Sphecidae. These chrysidid females bore holes on the mud-dauber nest surface into the cells with their long ovipositor and deposit an egg in each cell. After hatching, the chrysidid larva feeds on the well developed wasp grub and pupates at one end of

the host cell. The adult chrysidid emerges by gnawing holes at the sides of the cell.

The chrysidid wasps *Stilbum cyanurum* var. *splendeus* Fabr. are solitary or found in groups on vegetation (Pl. 1A). They are always seen hovering over areas where mud-dauber wasps of the family Eumenidae and Sphecidae, especially the mud cell builders such as *Eumenes conica* Fabr., *E. edwardsii* Sauss., *Sceliphron madraspatanam* Fabr., *S. intrudens* Smith., build